What is Claimed is:

1. A conveying apparatus for conveying a material which comprises:

an elongated conveying bed which includes a proximal end and a distal end;

a support structure for the conveying bed which accommodates vibratory motion of a portion of the conveying bed extending from the proximal end a substantial distance toward the distal end, but which dampens vibratory motion at the distal end; and

a piezoelectric driver which is operatively connected to the conveying bed adjacent the proximal end;

wherein operation of the piezoelectric driver induces a wave motion in the conveying bed which conveys the material from the proximal end to the distal end.

2. The conveying apparatus of claim 1, wherein the support structure comprises at least one isolation spring which is positioned between the proximal end and a static base structure, and a rigid support member which is positioned between the distal end and the base structure.

3. The conveying apparatus of claim 2, further comprising a static conveying trough which includes a pair of side walls that are positioned adjacent opposite sides of the conveying bed.

4. The conveying apparatus of claim 3, wherein the static conveying trough is supported proximate the distal end of the conveying bed by the rigid support member.

5. The conveying apparatus of claim 4, wherein the static conveying trough is further supported by at least one static support member which is spaced apart from the rigid support member.

6. The conveying apparatus of claim 1, wherein the conveying bed comprises a generally flat plate.

7. The conveying apparatus of claim 6, wherein the plate comprises a thickness of at least about 18 gauge.

8. The conveying apparatus of claim 1, wherein the piezoelectric driver is operable at a frequency of between about 0 and 20 kilohertz.

9. The conveying apparatus of claim 8, wherein the piezoelectric driver is operable at an amplitude of between about 0 and 0.002 inch.

10. The conveying apparatus of claim 1, wherein the piezoelectric driver is operable at approximately the natural frequency of the conveying bed.

11. A method for conveying a material which comprises the steps of:

providing an elongated conveying bed which includes a proximal end and a distal end;

supporting the conveying bed such that vibratory motion is accommodated in a portion of the conveying bed extending from the proximal end a substantial distance toward the distal end but dampened at the distal end; and

inducing vibratory motion in the proximal end of the conveying bed with a piezoelectric driver;

wherein the vibratory motion generates a wave motion in the conveying bed that conveys the material from the proximal end to the distal end.

12. The method of claim 11, wherein the piezoelectric driver is operated at a frequency of between about 0 and 20 kilohertz.

13. The method of claim 12, wherein the piezoelectric driver is operated at an amplitude of between about 0 and 0.002 inch.

14. The method of claim 11, wherein the piezoelectric driver is operated at approximately the natural frequency of the conveying bed.

15. The method of claim 11, further comprising the step of confining the material on the conveying bed with a static conveying trough which includes a pair of side walls that are positioned adjacent opposite sides of the conveying bed.